



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,275	04/22/2004	Kazuaki Suzuki	4276-0110P	6464

2292	7590	08/10/2007
BIRCH STEWART KOLASCH & BIRCH		
PO BOX 747		
FALLS CHURCH, VA 22040-0747		

EXAMINER	
WENDELL, MARK R	

ART UNIT	PAPER NUMBER
3609	

NOTIFICATION DATE	DELIVERY MODE
08/10/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

## Office Action Summary

**Application No.**

10/829,275

**Applicant(s)**

SUZUKI ET AL.

**Examiner**

Mark R. Wendell

**Art Unit**

3609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☒ Claim(s) 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20040422, 20060322</u> .                                      | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 3609

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

The disclosure is objected to because of the following informalities: Page 9, paragraphs 37-40, the words "views" should all be replaced with "view."

Appropriate correction is required.

### ***Claim Objections***

Claim 26 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim, or amend the claim to place the claim in proper dependent form, or rewrite the claim in independent form. The examiner notes that "not including on-site welding" does not further limit the parent claim..

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 3609

Claims 8, 10, 20, 22, 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant illustrates in Figures 1A-1C the yield line, but does not clearly disclose the ideas and details of the yield line theory.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Olashaw (US 4347015). Regarding claims 25 and 26, Olashaw illustrates in Figure 1 (and in Column 2, line 24 – Column 3, line 42) a method of assembling or reinforcing a building, comprising the steps of:

- Providing a gusset plate (10) and at least one splice plate (20, 22) having a non-rectangular cross-section;
- Connecting a first end of the splice plate (20b) to the gusset plate (10).

The examiner notes that the definition of a gusset plate is a plate used to reinforce. Items referred to as gusset plates in this office action fit the aforementioned definition.

Art Unit: 3609

Regarding claim 26, Olashaw does not disclose any required on-site welding to assemble or reinforce the building.

Regarding claim 27, Olashaw illustrates in Figure 1 connecting a second end of a splice plate (20a) to a structural member of the building (12).

Regarding claim 28, Olashaw illustrates in Figure 1 connecting the gusset (10) to a structural member of the building (12).

Regarding claim 29, Olashaw illustrates in Figure 1 a preexisting gusset (10) attached to a building that includes a stiffening rib (10b) that is connected to the first end of the splice plate (20b).

Regarding claim 30, Olashaw illustrates in Figure 1 a first gusset plate (10) connected to a second gusset plate (14).

Regarding claim 31, Olashaw illustrates in Figure 1 a first vertical gusset plate (14) and a second horizontal gusset plate (10), with the second gusset plate (10) connected to at least one additional splice plate (22).

Art Unit: 3609

Regarding claim 32, Olashaw illustrates in Figure 1 extending the splice plate (20, 22) toward a corner of the gusset plate (10, 14) beyond a yield line, as best understood by the examiner.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The examiner notes that it is well known in the art that structural frames are not stand-alone object and are constructed in association with a building structure.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olashaw (US 4347015) in view of Fouse (US 3458647). It is described above what is disclosed by Olashaw, however Olashaw does not distinctly teach the splice plate being constructed from section steel. Regarding claims 1, 5, 13 and 17, Fouse in Column 3, line 44, discloses splice plates being made from steel. It would have been obvious to one having ordinary skill in the art at the time of invention to fabricate the splice plate within the structure of Olashaw from steel as suggested in Fouse for added strength and anti-buckling purposes.

Art Unit: 3609

Regarding claims 2 and 14, Olashaw illustrates in Figure 1 the gusset plate (10) being connectable to a first structural member (12) and a splice plate (20) being connectable to a second structural member (14). The examiner notes that the term "connectable" is vague and is taken to mean "could connect" not necessarily "is connected to." The gusset plate (10) and splice plate (20) could connect to anything via bolts, welding, glue, etc.

Regarding claims 3 and 15, Olashaw illustrates in Figure 1 a first gusset plate (14) connected to a splice plate (20) and being connectable to a second gusset plate (10).

Regarding claims 4 and 16, Olashaw illustrates in Figure 1 the first gusset plate (14) being vertical and the second gusset plate (10) being horizontal with the horizontal gusset plate being connected to an additional splice plate (22) constructed from section steel and having a non-rectangular cross section.

Regarding claims 6 and 18, Olashaw illustrates the section steel splice plate connecting at least one rib (22a) to a flat plate (20b). The examiner notes that the terms "formed off site" render the claims product by process. A quote from MPEP 2113 states, "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is

Art Unit: 3609

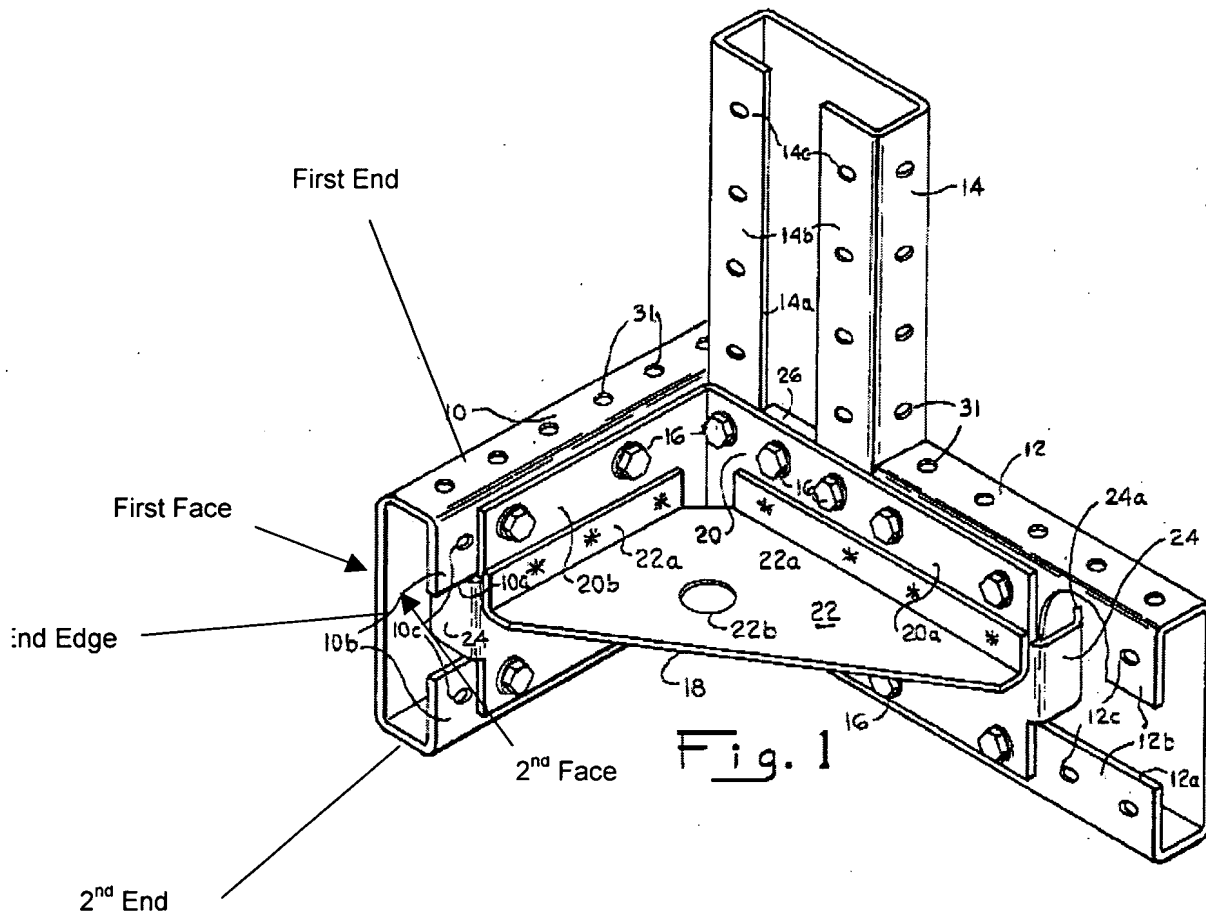
unpatentable even though the prior product was made by a different process." *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)."

Regarding claims 7 and 19, Olashaw illustrates in Figure 1 the gusset plate (10) including a rib (10) connected to a top edge and vertical upright edge.

Regarding claims 8 and 20, Olashaw illustrates in Figure 1 extending the splice plate (20, 22) toward a corner of the gusset plate (10, 14) beyond a yield line, as best understood by the examiner.

Regarding claims 9 and 21, Olashaw illustrates in Figure 1 a gusset including a first and second face and a first and second end with the ends being connected by an end edge. Olashaw also illustrates the first and second ends having a rib connected with the first and second faces having no stiffening ribs (see modified Figure below).





Regarding claims 10 and 22, Olashaw illustrates in Figure 1 a gusset plate (10) including a first and second face having stiffening ribs and the ribs not extending beyond the yield line, as best understood by the examiner.

Regarding claim 9 and 21, It would have been obvious to one of ordinary skill in the art to modify the gusset plate of Olashaw to not have stiffening ribs based upon the size of the object that needs to be supported or reinforced, since it has been held to be within

Art Unit: 3609

the general skill of a worker in the art to discover the optimum or workable ranges on the basis of its suitability for the intended use as a matter of obvious design choice (In re Aller, 105 USPQ 233). It would also be obvious to not include the ribs if they were not necessary in order to save manufacturing costs.

Regarding claims 11 and 23, Olashaw illustrates in Figure 1 a gusset including a first and second face and a first and second end with the ends being connected by an end edge (see modified Figure above).

Regarding claim 12 and 24, It would have been obvious to one of ordinary skill in the art to modify the gusset plate of Olashaw to not have stiffening ribs based upon the size of the object that needs to be supported or reinforced, since it has been held to be within the general skill of a worker in the art to discover the optimum or workable ranges on the basis of its suitability for the intended use as a matter of obvious design choice (In re Aller, 105 USPQ 233). It would also be obvious to not include the ribs if they were not necessary in order to save manufacturing costs.

### ***Conclusion***


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Houghton (US 6591573) teaches gusset plates in connection with a beam and a column. Biebuyck (US 4773193) teaches a flexible joint building system. Hoshino (US 5827006) teaches a joint structure for structural members.

Art Unit: 3609

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Wendell whose telephone number is (571) 270-3245. The examiner can normally be reached on Mon-Fri, 7:30AM-5PM, Alt. Fri off, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on (571) 272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

 8-6-07  
Charles Fox  
Primary Examiner  
Art Unit 3609

MRW  
July 19, 2007